R E P O R T R E S U M E S

ED 018 429 TE 000 387

A COMPARATIVE STUDY BETWEEN A STRUCTURED AND THEMATIC APPROACH IN SPELLING, THE STANLEY-VANCE SPELLING EXPERIMENT.

BY- PESCOSOLIDO, JOHN R.
CENTRAL CONNECTICUT STATE COLL., NEW BRITAIN

REPORT NUMBER LA-S1
EDRS PRICE MF-$0.25 HC-$0.44 9P.

DESCRIPTORS- *CLASSROOM RESEARCH, *ENGLISH INSTRUCTION, *LANGUAGE ARTS, *SPELLING INSTRUCTION, *TEACHING METHODS, BASIC SKILLS, ELEMENTARY SCHOOL STUDENTS, GRADE 2, PHONETIC ANALYSIS, PHONICS, WORD RECOGNITION, WORD STUDY SKILLS, ELEMENTARY EDUCATION, SPELLING,

CHILDREN IN FIVE SECOND-GRADE CLASSROOMS IN TWO CENTRAL CONNECTICUT STATE COLLEGE LABORATORY SCHOOLS PROVIDED THE POPULATION FOR A STUDY TO DETERMINE THE RELATIVE EFFECTIVENESS OF THREE APPROACHES TO SPELLING INSTRUCTION IN PRODUCING SIGNIFICANT DIFFERENCES (WITHIN I.Q. GROUPS OF 111-140 AND 90-110) IN SPELLING ACHIEVEMENT AND IN ABILITY TO GENERALIZE PHONIC PRINCIPLES. THESE APPROACHES TO SPELLING WERE (1) A PHONIC-STRUCTURAL APPROACH UTILIZING SKILL AND WORD MAINTENANCE AND INTEGRATION OF LANGUAGE SKILLS, (2) A WHOLE-WORD APPROACH EMPHASIZING MEANING AND CONTEXT, AND UTILIZING THE ANALYSIS OF WORDS AND DEVELOPMENT OF MEANING, AND (3) A TEACHER-DIRECTED APPROACH UTILIZING SKILLS TAUGHT IN THE READING PROGRAM TO DEVELOP SPELLING SKILLS. NO SIGNIFICANT DIFFERENCES AMONG THE THREE APPROACHES OCCURRED IN SPELLING ACHIEVEMENT WITHIN THE STUDY'S TOTAL POPULATION OR WITHIN THE 111-140 I.Q. RANGE. THE PHONIC-STRUCTURAL APPROACH PRODUCED A SIGNIFICANTLY GREATER GAIN IN SPELLING OVER THE OTHER APPROACHES WITHIN THE 90-110 I.Q. RANGE. SIGNIFICANT GAINS IN GROWTH OF WORD DISCRIMINATION OCCURRED FOR THE TEACHER-DIRECTED APPROACH WHEN CONSIDERING TOTAL POPULATION AND BOTH I.Q. RANGES. INTERPRETED GENERALLY, RESULTS INDICATED THAT THE PHONIC-STRUCTURAL AND TEACHER-DIRECTED APPROACHES ARE MORE EFFECTIVE THAN THE WHOLE-WORD APPROACH IN DEVELOPING SPELLING ABILITY AND WORD DISCRIMINATION. HOWEVER, THE STUDY WAS BIASED TOWARD THE ABOVE-AVERAGE POPULATION, AND THE YEAR-END TEST DID NOT HAVE A SUFFICIENTLY HIGH CEILING TO DISCRIMINATE AMONG THE ACHIEVEMENTS OF THE HIGH I.Q. STUDENTS. REPLICATION OF THE STUDY, FREE FROM I.Q. BIASES AND WITH ADEQUATE EVALUATIVE DEVICES, IS NEEDED. (SEE ALSO TE 000 388.) (RD)

A Comparative Study Between a Structured and Thematic Approach in Spelling

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Research Project LA-S1
of the Reading-Language Arts Center
Central Connecticut State College
Research Coordinator: J. Pescosolido

ED018429

THE STANLEY-VANCE SPELLING EXPERIMENT

Purpose of the Study

The purpose of this study was to determine the relative effectiveness of three approaches to spelling: (1) a phonic-structural approach (words grouped phonetically and structurally) that utilized skill and word maintenance and integration of language skills, (2) a whole-word approach (words grouped in terms of meaning and context) that utilized analysis of words and development of meaning, and (3) a teacher-directed approach that utilized skills taught in the reading program in order to develop spelling skills.

Relative effectiveness may be defined, for purposes of this study, as producing significant differences in spelling achievement and significant differences in ability to generalize phonic principles within I.Q. groups of 111-140 and 90-110.

Materials and Identification of Approaches

The phonic-structural approach used the Harper/Row Spellers published by Harper and Row, 1965. This approach is identified as HR in this study.

The whole-word approach with subsequent analysis of words used the Language Arts Spellers published by American Book Company, 1959. This approach is identified as AB in this study.

The teacher-directed approach did not use any formal spelling materials but relied on skill development of the basal reading program. Spelling lists were formulated by the teacher and consisted of words that represented the skill taught. For example, the digraph ea was taught and the spelling list consisted of such words as: each, teach, beach, read, treat. This approach is identified as TD in this study.

Table I presents the major characteristics of each approach.

TE000 387

Table I

Characteristics of Approaches

	HR	AB	TD
Word Groupings	phonetically and structurally grouped	grouped in terms of meaning and context	phonetically and structurally grouped
Non-phonetic words	special presentation and analysis	special analysis	special presentation and analysis
Word list source	from graded list	from graded list	no special basis
Word maintenance	words repeated throughout the text in dictation and test	words repeated in unit tests	no established procedure
Skill development	sequential development	no established procedure	sequential development according to reading program
Skill maintenance	skills maintained systematically within book and among books in series	no specific plan	dependent upon reading skill maintenance
Integration of Language Skills	Integrated with sentence and paragraph writing, punctuation, writing titles and others	Vocabulary development and usage	no specific plan
Provision for different learning abilities	Activities provided to extend abilities of children	no specific plan	no specific plan

Population for the Study

The children in five second grade classrooms in two laboratory schools of Central Connecticut State College comprised the population for the study for the first year. The groups were homogeneous in that no significant statistical differences existed among them in chronological age, intelligence quotient as measured by Kuhlmann-Anderson Test, Form B, published by Personnel Press, 1963, and revised in 1964, and reading and spelling achievement as measured by the Metropolitan Achievement Test, Primary II Battery, Harcourt, Brace and World, 1958.

Table II presents the data relevant to the population.

Table II

Population Data

Approach	N	Mean C.A.	Mean I.Q.	I.Q. Range
HR	51	7-4	111.2	76-140
AB	40	7-6	111.3	90-135
TD	22	7-6	112.2	83-127

The socio-economic status of all children was essentially at the middle and upper-middle levels.

Teacher Preparation and Background

The five teachers in the study were all experienced with at least five years at the elementary level. All teachers were supervising teachers in the laboratory schools and were members of the college faculty.

Experimental Design

Each class was self-contained and teachers taught spelling during a specific period each day. Teachers followed the manual and activities as directed in the HR and AB sections. The TD class followed the planned activities of the teacher. The outline of the TD class activities had been reviewed by the research director. Essentially the skills paralleled those developed in most second grade reading programs.

Teachers gave time to spelling skills in other curriculum areas as the need arose. This time was not considered part of the basic spelling period because it would be difficult to control; thus, no attempt was made to equate the time spent on spelling in conjunction with other content areas.

Because of the differing demands of the program, time devoted to teaching basic spelling skills was not the same in all classes. The HR teachers averaged twenty-five minutes per day, the TD teacher twenty minutes, and the AB teachers averaged nineteen minutes per day. Spelling was taught five days per week.

Pre-tests in reading and spelling achievement were administered in October, 1965. Teachers followed the programs for spelling development for nine months (September-May, inclusive) as outlined in the teachers manual of the series. (In the TD section, the teacher followed the planned program developed through past years' experiences.)

Spelling Performance

The spelling section of the Metropolitan Achievement Test, Primary Battery, Form A, was administered in September to determine the spelling ability of the population at the beginning of the experiment. Form B of the Metropolitan was administered in June to determine the spelling ability of the population after nine months of instruction.

The Metropolitan Achievement Test in spelling is a fifty-word test with each word dictated by the teacher, used in a sentence, and repeated. The child, in order to receive a correct score must write each word correctly.

Results of spelling achievement are presented in Table III.

When considering the total population no significant differences occurred among the groups. All groups made above average gains with the HR group showing eleven months growth in nine months of instruction and ten months gains recorded by the TD and AB groups.

An analysis of two I.Q. categories indicated no significant differences among groups in the 111-140 I.Q. range. The TD group gained 11 months, the AB group 10.6 months, and the HR group 10 months.

Table III

Results of Metropolitan Achievement Test, Spelling Sections
Primary II Battery, Administered September, 1965 and June, 1966

	Total Population				I.Q. 111-140				I.Q. 90-110		
Approach	N	Pre-Test	Post-Test	Gain	N	Pre-Test	Post-Test	Gain	N	Pre-Test	Post-Test	Gain
HR	51	2.68	3.82	1.14	27	3.23	4.23	1.00	23	2.10	3.42	1.32*
TD	22	2.73	3.77	1.04	14	3.00	4.10	1.10	7	2.43	3.41	.98
AB	40	2.57	3.59	1.02	21	2.80	3.86	1.06	19	2.35	3.28	.93

*Significant at .05 level.

In the 90-110 I.Q. range the gain of 13.2 months for the HR group was significant at the .05 level. The TD group gained 9.8 months and the AB group gained 9.3 months.

Word Discrimination Factor

The word discrimination portions of the Metropolitan Achievement Test were administered to determine if specific instructional techniques used in spelling made a difference when reading instruction was similar. (Similar in the respect that all groups were taught through the basal approach.)

The word discrimination test of the Metropolitan Battery requires a child to select a word uttered by the examiner from four similar words. For example, in one of the thirty-five such items the child must select the word come from the list: some, came, come, could.

Results of word discrimination achievement are presented in Table IV.

When considering the total population in relation to word discrimination the TD group performed significantly better than the other two groups and the gain by the HR group was significantly better than the AB group.

An analysis of two I.Q. categories indicated that both the TD gain of seven months and the HR gain of six months were significantly better than the AB gain of 3.4 months in word discrimination ability by children in the 111-140 I.Q. range.

In the 90-110 I.Q. range the gain of 10.6 months by the TD group was significant over 6.8 months gained by the HR group and 4.8 months gained by the AB group. The HR gain was significant over the AB gain.

Table IV

Results of Metropolitan Achievement Test, Word Discrimination Section
Primary II Battery, Administered September 1965 and June 1966

	Total Population				I.Q. 111-140				I.Q. 90-110			
Approach	N	Pre-Test	Post-Test	Gain	N	Pre-Test	Post-Test	Gain	N	Pre-Test	Post Test	Gain
HR	51	3.21	3.83	.62*	27	3.57	4.17	.60*	23	2.91	3.59	.68*
TD	22	3.41	4.24	.83*	14	3.76	4.46	.70*	7	2.80	3.86	1.06*
AB	40	3.57	3.98	.41	21	3.70	4.04	.34	19	3.43	3.91	.48

*Significant at .05 level

Conclusion

1. No significant differences occurred in spelling achievement, within the total population of the study, at the Grade II level, when children were taught through different approaches, i.e., phonic-structural, whole-word, and teacher directed.

2. No significant differences occurred in spelling achievement at the Grade II level among children in the 111-140 I.Q. range when taught through different approaches.

3. The phonic-structural approach (HR) produced a significantly greater gain in spelling (13.2 months) over groups taught through teacher-directed (TD) and whole-word (AB) approaches in the 90-110 I.Q. range.

4. Growth in word discrimination, as measured by the Metropolitan Achievement Test, favored the teacher-directed approach when considering the total population, I.Q. range of 111-140, and I.Q. range of 90-110. Significant gains at the .05 level occurred for the TD approach over the whole-word method when considering the total population and within I.Q. ranges of 111-140 and 90-110. The gains through the TD and the HR approaches were significant over the whole-word approach in the 90-110 I.Q. range.

5. A general interpretation of results indicated that the phonic-structural and teacher-directed approaches to teaching spelling proved to be more effective in developing spelling ability and word discrimination ability than the whole-word approach.

Comments

This study indicated that no superiority among spelling approaches existed when the total population of the study was considered. When the sub-group (I.Q. range 90-110) was considered the gain by the phonic-structural group (HR) was significant over the teacher-directed and whole-word approaches.

A possible reason for non-significant findings among the total population may be related to an analysis of the 111-140 I.Q. group. Of the 113 children in the study, 62 had I.Q.'s ranging from 111-140 and 49 had

I.Q.'s ranging from 90-110. The study then was biased toward the above-average population. This advanced group began second grade at a third grade spelling level. The end-of-year test did not, in the opinion of the writer, have a sufficiently high ceiling to be discriminatory among the high I.Q. group. Hence, if differences in performance did actually occur, the test could not measure these differences at the high levels of achievement.

To further substantiate the above, an analysis of growth in the 111-140 I.Q. group indicated an average growth of ten months. In the 90-110 group the average growth was eleven to twelve months. Thus, we have a situation whereby an average group out-performed an above average group. In the opinion of the writer, such results are unlikely and are probably due to the non-discriminatory power of the test.

In terms of word discrimination ability, there is little doubt that a spelling program which is teacher-directed and closely related to the reading program provides the greatest growth in word discrimination ability. After observing the program, however, it may not be a realistic approach because it requires an above-average teacher and extensive teacher planning.

On the other hand, the whole word approach to spelling did little to enhance word discrimination ability and this raises a question. If the whole word approach is used successfully in spelling would it not require a high degree of visual discrimination ability? If the answer is "yes," then visual discrimination ability must be adequately developed through other curriculum areas because this study indicated the whole-word approach in spelling does not develop the visual discrimination ability.

This study indicated that further research is necessary and adequate evaluative devices are needed. Replication of the study, free from I.Q. biases, is needed.